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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/624,876 | 07/22/2003 | Jeffrey W. Liebert | 4090-152 | 6796 |
| 7590 | 04/06/2006 | | EXAMINER | |
| Woodard, Emhardt, Moriarty, McNett & Henry LLP Bank One Center/Tower Suite 3700 111 Monument Circle Indianapolis, IN 46204-5137 | | | MILLER, CARL STUART | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3747 | |
| DATE MAILED: 04/06/2006 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/624,876 | LIEBERT, JEFFREY W. | |
| | Examiner | Art Unit | |
| | Carl S. Miller | 3747 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 05 January 2006.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) 5,17,44 and 45 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-4,6-16,18-38,40-43 and 46-49 is/are rejected.
- 7) Claim(s) 39 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

Claims 5, 17 and 44-45 remain withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 7/14/05.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 6-10, 14-16, 18-25, 27-38, 40-43, 46 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martin in view of Zurfluh and Bock ('481).

Martin teaches applicant's basic structure in that the reference shows a spacer (22) sandwiched between a head gasket and a lower metallic gasket (20). The Martin spacer does not have the boss portion of the claims. Martin further teaches that replacement of the inserts is possible, thereby making the applicant's replacement method claims (30+) obvious as well.

Bock teaches the use of a spacer (64) with a boss portion similar to the applicant's plate member. Bock's spacer channels coolant along the side of the cylinder liner and thus acts to carry heat away from the liner.

Zurfluh, at Figure 1, teaches a metallic gasket which includes holes for coolant flow that surround the cylinders and additional holes (24) for mounting bolts.

It would have been obvious to modify Martin by making the spacer element as taught by Bock (to include a boss portion) and to make the face of the gasket as taught by Zurfluh because Bock taught the heat dissipation advantages of his spacer structure and Zurfluh simply illustrated the need to make any spacer or gasket with orifices for coolant flow and head mounting bolts.

Claims 11-13, 26, 47 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martin, Zurfluh and Bock as applied to claim 1 above, and further in view of Ford and Ishida.

Ford teaches constructing a cylinder liner of low carbon ductile steel and since steel is made from iron, such a liner would have conductivity levels similar to an iron liner and make such a liner obvious.

Ishida teaches a gasket made of aluminum and such a gasket would have a higher thermal conductivity than the liner of Ford.

It would have been obvious to modify Martin as above and to use the materials taught by Ford and Ishida for the liner and plate/spacer, respectively, because these materials were commonly used for these elements.

Finally, since applicant's plate is made of aluminum, it may be assumed that the coefficient of thermal conductivity of aluminum is approximately 247.

Claim 39 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant's arguments filed 1/05/06 have been fully considered but they are not persuasive. In particular, applicant's arguments focus upon what he considers a lack of motivation to combine the applied references. It should be noted from the outset that the Martin disclosure is extremely similar to applicant's in that the three-piece liner support is clearly shown. The spacer (or plate), of course, lacks applicant's claimed boss sections that he states are used to carry heat away from the plate. Bock has been applied to teach that it was known to use a spacer having a boss section that extends along the side of the liner and that this boss section could be used to help dissipate heat. Applicant feels that combining the boss of Bock and the spacer (22) of Martin into a one-piece structure would somehow destroy Martin and result in a structure that would teach against Martin. Such a one-piece structure would instead simply laterally support the liner of Martin and allow coolant to flow through the boss instead of through passage (18). Furthermore, the boss section of element (22) would simply allow seal (40) to be eliminated or moved further down the liner, neither of which would destroy the Martin structure. All applicant has really done is to create an extension of the side of spacer (22) of Martin thereby using the spacer to also support the liner in a lateral fashion and this idea had already been achieved in the same environment by Bock.

With regard to Zurfluh, surely applicant would not argue that it would not have been obvious to provide the claimed passageways in Martin, since mounting bolts are simply not shown and at least one coolant passage is shown.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carl S. Miller whose telephone number is 571-272-4849. The examiner can normally be reached on MTWTHF.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry YUEN, can be reached at 571-272-4856. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Carl S. Miller
Primary Examiner